



CITRUS JANUARY FORECAST MATURITY TEST RESULTS AND FRUIT SIZE

Cooperating with the Florida Department of Agriculture and Consumer Services
851 Trafalgar Ct, Suite 310E, Maitland, FL 32751-4132
(407) 648-6013 · (855) 271-9801 FAX · www.nass.usda.gov/fl

January 10, 2020

Florida All Orange Production Unchanged from December Forecast
Florida Non-Valencia Orange Production Unchanged
Florida Valencia Orange Production Unchanged
Florida All Grapefruit Production Up 10 Percent
Florida All Tangerine and Tangelo Production Unchanged

FORECAST DATES - 2019-2020 SEASON	
February 11, 2020	May 12, 2020
March 10, 2020	June 11, 2020
April 9, 2020	July 10, 2020

Citrus Production by Type – States and United States

Crop and State	Production ¹		2019-2020 Forecasted Production ¹	
	2017-2018 (1,000 boxes)	2018-2019 (1,000 boxes)	December (1,000 boxes)	January (1,000 boxes)
Non-Valencia Oranges ²				
Florida	18,950	30,400	32,000	32,000
California	35,900	40,800	38,000	40,000
Texas	1,530	2,210	2,050	1,950
United States.....	56,380	73,410	72,050	73,950
Valencia Oranges				
Florida	26,100	41,350	42,000	42,000
California	8,300	9,000	9,000	9,000
Texas	350	290	650	610
United States.....	34,750	50,640	51,650	51,610
All Oranges				
Florida	45,050	71,750	74,000	74,000
California	44,200	49,800	47,000	49,000
Texas	1,880	2,500	2,700	2,560
United States.....	91,130	124,050	123,700	125,560
Grapefruit				
Florida-All	3,880	4,510	4,900	5,400
Red	3,180	3,740	4,100	4,500
White	700	770	800	900
California	3,800	3,200	4,200	4,100
Texas	4,800	6,100	5,700	6,200
United States.....	12,480	13,810	14,800	15,700
Lemons				
Arizona.....	1,000	1,350	1,400	1,400
California.....	21,200	22,800	20,000	19,000
United States.....	22,200	24,150	21,400	20,400
Tangerines and Tangelos				
Florida ³	750	990	1,050	1,050
California ⁴	19,200	26,000	23,000	22,000
United States.....	19,950	26,990	24,050	23,050

¹ Net pounds per box: oranges in California-80, Florida-90, Texas-85; grapefruit in California and Texas-80, Florida-85; lemons-80; and tangerines and mandarins in California-80, Florida-95.

² Navel and miscellaneous varieties in California. Early non-Valencia (including Navel) and midseason non-Valencia varieties in Florida and Texas.

³ Includes all certified varieties of tangerines and tangelos.

⁴ Includes tangelos and tangors.

All Oranges 74.0 Million Boxes

The 2019-2020 Florida all orange forecast released today by the USDA Agricultural Statistics Board is 74.0 million boxes, unchanged from the December forecast. If realized, this will be 3 percent more than last season's final production. The forecast consists of 32.0 million boxes of the non-Valencia oranges (early, midseason, and Navel varieties) and 42.0 million boxes of the Valencia oranges. A 9-year regression has been used for comparison purposes. All references to "average", "minimum", and "maximum" refer to the previous 10 seasons, excluding the 2017-2018 season, which was affected by Hurricane Irma. Average fruit per tree includes both regular and first late bloom.

Non-Valencia Oranges 32.0 Million Boxes

The forecast of non-Valencia production is unchanged at 32.0 million boxes. Final fruit size is below average, requiring 316 pieces to fill a 90 pound box. Final droppage at 28 percent is above average. The Navel forecast, included in the non-Valencia forecast, is unchanged at 800,000 boxes, and is 3 percent of the non-Valencia total.

Valencia Oranges 42.0 Million Boxes

The forecast of Valencia production is unchanged from the previous forecast at 42.0 million boxes. Current fruit size is below average and is projected to be below average at harvest. Current droppage is above average and projected to be above average at harvest.

All Grapefruit 5.40 Million Boxes

The forecast of all grapefruit production is increased 500,000 boxes from December. If realized, this will be 20 percent more than last season's final production. The red grapefruit forecast is now 4.50 million boxes. Fruit size of red grapefruit at harvest is projected to be above average. Projected droppage is above average. The white grapefruit forecast is increased to 900,000 boxes. Projected fruit size of white grapefruit at harvest is above average. Projected droppage is above average.

Tangerines and Tangelos 1.05 Million Boxes

The forecast for tangerine and tangelos is unchanged from the December forecast at 1.05 million boxes, 6 percent more than last season's utilization of 990 thousand boxes. This forecast number includes all certified tangerine and tangelo varieties.

Reliability

To assist users in evaluating the reliability of the January 1 Florida production forecasts, the "Root Mean Square Error," a statistical measure based on past performance, is computed. The deviation between the January 1 production forecast and the final estimate is expressed as a percentage of the final estimate. The average of squared percentage deviations for the latest 20-year period is computed. The square root of the average becomes statistically the "Root Mean Square Error." Probability statements can be made concerning expected differences in the current forecast relative to the final end-of-season estimate, assuming that factors affecting this year's forecast are not different from those influencing recent years.

The "Root Mean Square Error" for the January 1 Florida all orange production forecast is 6.1 percent. However, if you exclude the three abnormal production seasons (three hurricane seasons), the "Root Mean Square Error" is 5.9 percent. This means chances are 2 out of 3 that the current all orange production forecast will not be above or below the final estimates by more than 6.1 percent, or 6.0 percent excluding abnormal seasons. Chances are 9 out of 10 (90 percent confidence level) that the difference will not exceed 10.5 percent, including or excluding abnormal seasons.

Changes between the January 1 Florida all orange forecast and the final estimates during the past 20 years have averaged 5.94 million boxes (5.61 million, excluding abnormal seasons), ranging from 0.30 million boxes to 14.0 million boxes including abnormal seasons, (0.30 to 14.0 million boxes excluding abnormal seasons). The January 1 forecast for all oranges has been below the final estimate 6 times, above 14 times, (below 6 times, above 12 times, excluding abnormal seasons). The difference does not imply that the January 1 forecasts this year are likely to understate or overstate final production.

Forecast Components, by Type – Florida: January 2020

[Survey data is considered final in December for Navels, January for early-midseason (non-Valencia) oranges, February for grapefruit, and April for Valencia oranges]

Type	Bearing trees (1,000 trees)	Fruit per tree (number)	Droppage (percent)	Fruit per box (number)
ORANGES				
Early-midseason (Non-Valencia) ¹	19,529	775	28	316
Navel.....	932	236	26	139
Valencia	29,615	536	28	247
GRAPEFRUIT				
Red	2,150	415	31	119
White.....	356	453	29	106

¹ Excludes Navels.

Maturity

Regular bloom fruit samples were collected on December 30-31, 2019, from groves on established routes in Florida's five major citrus producing areas and tested January 2-3, 2020. All comparisons in the first table are made to January 1, 2019. Ratios are higher on early non-Valencia oranges, but lower for midseason non-Valencia and Valencia oranges. Unfinished juice per box is higher on all varieties, while solids per box are higher only on early and midseason non-Valencia oranges.

All Indian River comparisons are made to fruit from other areas for this test period. Indian River early non-Valencia and Valencia oranges have higher acid levels and higher Solids (Brix) than other areas. Unfinished juice per box and solid per box is higher for samples collected in the Indian River Area for early non-Valencia and Valencia oranges.

Unadjusted Maturity Tests — Florida: January 1, 2018-2019 and 2019-2020

[Averages of regular bloom fruit from sample groves. Juice and solids per box are unadjusted and not comparable to juice processing plant test results. Samples were run through an FMC 091B machine using pneumatic pressure. This machine utilizes a 0.025 short strainer and a 1.00 inch orifice tube for the 3 inch cup and a 1.25 inch orifice tube for the 4 inch and 5 inch cups]

Fruit type (number of groves) test date	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Early N-V (69-88)										
Sep 1	1.22	1.21	8.88	9.04	7.35	7.52	43.60	44.73	3.87	4.04
Oct 1	0.88	0.88	9.24	9.63	10.69	11.13	48.63	49.45	4.49	4.76
Nov 1	0.69	0.64	9.73	10.24	14.23	16.05	50.35	51.24	4.89	5.24
Dec 1	0.62	0.60	10.03	10.52	16.45	17.62	52.13	53.06	5.23	5.58
Jan 1	0.57	0.55	10.69	10.74	18.89	19.57	50.35	52.10	5.39	5.60
Midseason N-V (44-38)										
Sep 1	1.32	1.38	8.90	8.96	6.80	6.65	45.08	45.31	4.01	4.06
Oct 1	0.95	1.02	9.29	9.77	9.96	9.72	49.60	49.56	4.61	4.84
Nov 1	0.82	0.76	9.95	10.28	12.52	13.77	50.51	51.76	5.02	5.32
Dec 1	0.73	0.66	10.26	10.54	14.36	16.23	52.20	53.10	5.36	5.60
Jan 1	0.66	0.67	10.77	10.86	16.71	16.52	51.41	53.82	5.54	5.84
Valencia (150-150)										
Sep 1	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Oct 1	1.90	1.97	8.56	9.08	4.54	4.68	46.30	47.73	3.96	4.33
Nov 1	1.52	1.47	9.15	9.48	6.11	6.57	49.87	51.73	4.56	4.90
Dec 1	1.26	1.24	9.60	9.48	7.70	7.88	52.15	53.82	5.01	5.11
Jan 1	1.05	1.04	10.55	10.14	10.19	9.88	52.79	54.50	5.57	5.53

(N-V) Non-Valencia

(NA) Not available.

Unadjusted Maturity Test Averages, by Areas — Florida: January 1, 2018-2019 and 2019-2020

Fruit type (number of groves)	Acid		Solids (Brix)		Ratio		Unfinished juice per box		Solids per box	
	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020	2018-2019	2019-2020
	(percent)	(percent)	(percent)	(percent)			(pounds)	(pounds)	(pounds)	(pounds)
ORANGES										
Early N-V										
Indian River (7-8)	0.60	0.56	11.43	11.04	19.24	19.82	47.92	52.51	5.50	5.81
Other Areas (62-80)	0.57	0.55	10.61	10.71	18.85	19.54	50.63	52.05	5.37	5.58
Midseason N-V										
Indian River (2-2)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)	(D)
Other Areas (42-36)	0.65	0.67	10.76	10.81	16.77	16.42	51.44	53.82	5.53	5.81
Valencia										
Indian River (29-29)	1.16	1.16	10.99	10.51	9.57	9.09	51.40	54.68	5.65	5.74
Other Areas (121-121)	1.02	1.01	10.44	10.05	10.34	10.07	53.13	54.46	5.55	5.47

(N-V) Non-Valencia

(D) Withheld to avoid disclosing data for individual operations.

Size Frequency Measurement Distributions, by Type — Florida: December Survey

[Size frequency distributions from the December size survey are shown in the following table. The distributions are by percent of fruit falling within the size range of each 4/5-bushel container. These frequency distributions include fruit from regular bloom and exclude fruit from summer bloom]

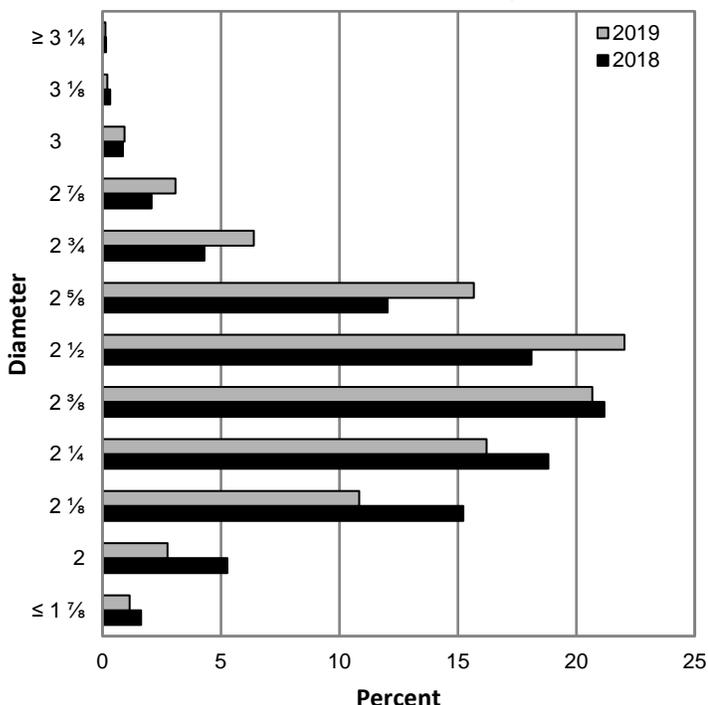
Type and number of fruit per 4/5 – bushel containers	2017	2018	2019	Type and number of fruit per 4/5 – bushel containers	2017	2018	2019
	(percent)	(percent)	(percent)		(percent)	(percent)	(percent)
NON-VALENCIA ORANGES ¹				RED GRAPEFRUIT			
64 or less	0.9	0.3	0.2	32 or less	4.8	0.5	2.3
80	5.3	1.9	2.1	36	10.6	2.4	7.7
100	21.3	9.8	14.2	40	13.8	6.2	12.2
125	36.0	25.9	31.9	48	18.3	11.7	16.8
163 or more	36.5	62.1	51.6	56	12.2	13.5	16.3
				63 or more	40.3	65.7	44.7
VALENCIA ORANGES				WHITE GRAPEFRUIT ²			
64 or less	2.1	0.3	0.6	32 or less	5.4	5.5	7.1
80	10.2	3.8	6.2	36	13.2	8.4	9.6
100	27.9	19.8	26.0	40	13.7	10.0	16.6
125	33.5	33.1	35.4	48	17.0	9.1	17.9
163 or more	26.3	43.0	31.8	56	13.5	13.7	12.3
				63 or more	37.2	53.3	36.5
HONEY TANGERINES							
80 or less	3.9	2.4	5.5				
100	14.1	10.2	12.2				
120	28.6	25.7	27.8				
176	17.5	17.9	20.5				
210 or more	35.9	43.8	34.0				

¹ Excludes Navels.

² Excludes seedy.

The charts below show the distribution of fruit sizes in 2018 compared to 2019. The diameter measurements shown are the minimum values of each eighth inch range, except for the smallest values.

Fruit Size Frequency Measurements, Non-Valencia Oranges ¹, by Diameter - Florida: December Survey



¹ Excludes Navel varieties.

Fruit Size Frequency Measurements, Red Grapefruit, by Diameter - Florida: December Survey

